

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-6. (Canceled)

7. (Currently amended) An ~~A heat or irradiation sterilized~~ embolic composition comprising:

(a) a hydroxyl-containing rheological modifier in an effective amount to impart shear thinning, pseudo-plastic properties to the composition, wherein the modifier is selected from the group consisting of fumed silica, poly(2-hydroxyethylacrylates), copolymers of ethylene and maleic acid, polyvinylalcohol, oxidized poly(alkenes), hydroxypropylcellulose, hydroxypropylmethylcellulose, carboxymethylcellulose, sodium hydroxyethylcellulose, hydroxyethylcellulose, methylcellulose, poly(2-hydroxyethylmethacrylates), poly(saccharides), poly(siloxanes), carrageenan, guar, xanthan gum, locus bean gum, homo- and co-polymers of mannuronic acid and glucuronic acid and particulate rheological modifiers; ~~and~~

(b) ~~a water-insoluble, biocompatible polymer, a biocompatible solvent which dissolves the biocompatible polymer and optionally a visualizing effective amount of a contrast agent; ethylene vinyl alcohol copolymer;~~

(c) dimethyl sulfoxide which solubilizes the ethylene vinyl alcohol copolymer; and

(d) a visualizing effective amount of tantalum;

wherein the composition is sterilized by irradiation and the composition exhibits a minimal change in its thixotropic behavior after sterilization as compared to the composition prior to sterilization wherein such minimal change is represented graphically characterized by an area between ~~the two~~ curves measuring shear stress at increasing shear rates and decreasing shear

rates measured at from 0 to 250 s⁻¹ ~~of no more than about 25,000 Pa/sec~~ and said area ~~between the two curves~~ is from about 1,000 to about 20,000 Pa/sec.

8. (Canceled)

9. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 7, wherein the area ~~between the two curves~~ is from about 2,500 to about 15,000 Pa/sec.

10. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 7, wherein the sterilized composition is further characterized by exhibiting a change of an increase of less than about 25% of its viscosity at 37°C over a shelf-life of 6 months or more at a high shear of 250 sec⁻¹ as compared to the viscosity under the same conditions immediately after sterilization.

11. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 10, wherein the sterilized composition is further characterized by exhibiting a change of an increase of less than about 20% of its viscosity at 37°C over a shelf-life of 6 months or more at a high shear of 250 sec⁻¹ as compared to the viscosity under the same conditions immediately after sterilization.

12. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 11, wherein the sterilized composition is further characterized by exhibiting a change of an increase of less than about 15% of its viscosity at 37°C over a shelf-life of 6 months or more at a high shear of 250 sec⁻¹ as compared to the viscosity under the same conditions immediately after sterilization.

13. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 12, wherein the sterilized composition is further characterized by exhibiting a change of an increase of less than about 10% of its viscosity at 37°C over a shelf-life of 6 months

or more at a high shear of 250 sec^{-1} as compared to the viscosity under the same conditions immediately after sterilization.

14. (Canceled)

15. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 7, wherein the ethylene vinyl alcohol copolymer, dimethyl sulfoxide and tantalum composition, in the absence of the rheological modifier, has a viscosity of at least 150 cP at 37°C.

16. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 15, wherein the ethylene vinyl alcohol copolymer, dimethyl sulfoxide and tantalum composition, in the absence of a rheological modifier, has a viscosity of at least 100 cP at 37°C.

17-35 (Canceled)

36. (Currently amended) An ~~heat or irradiation sterilized~~ embolic composition comprising:

(a) ~~a sufficient amount of a~~ hydroxyl-containing rheological modifier in an effective amount to impart pseudo-plastic, shear thinning properties to the composition, wherein the modifier is selected from the group consisting of fumed silica, poly(2-hydroxyethylacrylates), copolymers of ethylene and maleic acid, polyvinylalcohol, oxidized poly(alkenes), hydroxypropylcellulose, hydroxypropylmethylcellulose, carboxymethylcellulose, sodium hydroxyethylcellulose, hydroxyethylcellulose, methylcellulose, poly(2-hydroxyethylmethacrylates), poly(saccharides), poly(siloxanes), carrageenan, guar, xanthan gum, locus bean gum, homo- and co-polymers of mannuronic acid and glucuronic acid and particulate rheological modifiers;

(b) ethylene vinyl alcohol copolymer,

(c) dimethyl sulfoxide which solubilizes the ethylene vinyl alcohol copolymer; and

(d) a visualizing effective amount of tantalum;

and wherein at least about 25% of the surface hydroxyl groups have been converted to non-hydroxyl groups and further wherein said embolic composition is sterilized by irradiation and wherein said embolic composition exhibits a minimal change in its thixotropic behavior after sterilization as compared to the composition prior to sterilization wherein such minimal change is represented graphically characterized by an area between ~~the two curves~~ measuring shear stress at increasing shear rates and decreasing shear rates measured at from 0 to 250 s^{-1} ~~of no more than about 25,000 Pa/sec~~ and said area ~~between the two curves~~ is from about 1,000 to about 20,000 Pa/sec.

37. (Canceled)

38. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 36, wherein the area ~~between the two curves~~ is from about 2,500 to about 15,000 Pa/sec.

39. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 36, wherein at least about 50% of the surface hydroxyl groups have been converted to non-hydroxyl groups.

40. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 39, wherein at least about 90% of the surface hydroxyl groups have been converted to non-hydroxyl groups.

41. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 36, wherein the sterilized composition is further characterized by exhibiting a change ~~reduction~~ of less than about 25% of its viscosity over a ~~4-year~~ shelf-life of 6 months or

more at a high shear of 250 sec⁻¹ as compared to the viscosity under the same conditions immediately after sterilization.

42. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 36, wherein the sterilized composition is further characterized by exhibiting a ~~change reduction~~ of less than about 20% of its viscosity over a ~~4-year shelf-life of 6 months or~~ more at a high shear of 250 sec⁻¹ as compared to the viscosity under the same conditions immediately after sterilization.

43. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 42, wherein the sterilized composition is further characterized by exhibiting a ~~change reduction~~ of less than about 15% of its viscosity over a ~~4-year shelf-life of 6 months or~~ more at a high shear of 250 sec⁻¹ as compared to the viscosity under the same conditions immediately after sterilization.

44. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 43, wherein the sterilized composition is further characterized by exhibiting a ~~change reduction~~ of less than about 10% of its viscosity over a 1 year shelf-life.

45. (Canceled)

46. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim [[45]] 36, wherein the ethylene vinyl alcohol copolymer, dimethyl sulfoxide and tantalum have embolic composition, in the absence of the rheological modifier, has a viscosity of at least 150 cP at 37°C.

47. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 46, wherein the ethylene vinyl alcohol copolymer, dimethyl sulfoxide and tantalum have embolic composition, in the absence of the rheological modifier, has a viscosity of at least 100 cP at 37°C.

48-50. (Canceled)

51. (Currently amended) The ~~heat or irradiation sterilized~~ embolic composition according to Claim 7 or Claim 36, wherein the particulate rheological modifier is selected from the group consisting of hydrophilic fumed silica, silicaceous earth, organoclays, and water-swellaable clays.

52. (new) The embolic composition according to Claim 7 or Claim 36, wherein the rheological modifier is hydrophilic fumed silica.

53. (new) An embolic composition comprising:

(a) fumed silica in an effective amount to impart shear thinning, pseudo-plastic properties to the composition,

(b) ethylene vinyl alcohol copolymer;

(c) dimethyl sulfoxide which solubilizes the ethylene vinyl alcohol copolymer; and

(d) a visualizing effective amount of tantalum;

wherein the composition is sterilized by irradiation and the composition exhibits a minimal change in its thixotropic behavior after sterilization as compared to the composition prior to sterilization wherein such minimal change is represented graphically by an area between curves measuring shear stress at increasing shear rates and decreasing shear rates measured at from 0 to 250 s⁻¹ and said area is from about 1,000 to about 20,000 Pa/sec.

54. (new) An embolic composition comprising:

(a) fumed silica in an effective amount to impart shear thinning, pseudo-plastic properties to the composition,

(b) ethylene vinyl alcohol copolymer;

(c) dimethyl sulfoxide which solubilizes the ethylene vinyl alcohol copolymer; and

(d) a visualizing effective amount of tantalum;

wherein at least about 25% of the surface hydroxyl groups of the fumed silica have been converted to non-hydroxyl groups and further wherein said embolic composition is sterilized by irradiation and exhibits a minimal change in its thixotropic behavior after sterilization as compared to the composition prior to sterilization wherein such minimal change is represented graphically by an area between curves measuring shear stress at increasing shear rates and decreasing shear rates measured at from 0 to 250 s^{-1} and said area is from about 1,000 to about 20,000 Pa/sec.